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Patent Abstracts of Japan

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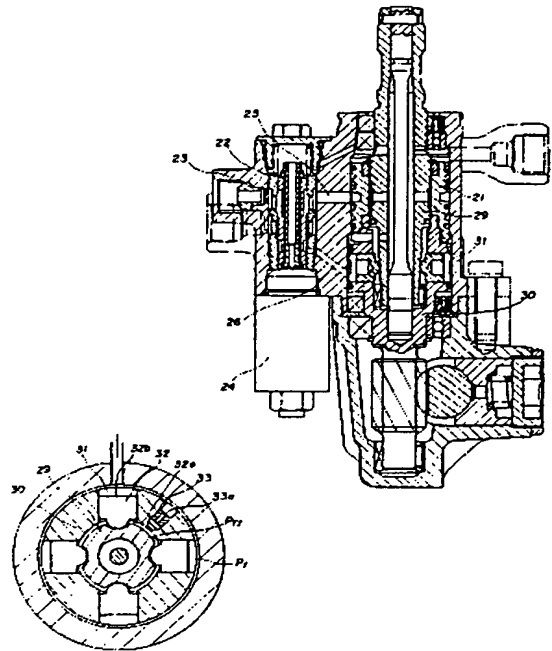
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TITLE : HYDRAULIC PRESSURE REACTION  
CONTROLLING DEVICE FOR POWER  
STEERING DEVICE



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ABSTRACT : PURPOSE: To enable a reaction torque to vary smoothly by configuring a device in such a way that a fixed restrictor is provided for a pinion shaft, on which the plural number of reaction chambers is formed to the radial direction, and hydraulic return pressure is allowed to act on the end surface of a plunger in the reaction chamber through the said restrictor.

CONSTITUTION: A power steering device is provided with a reaction pressure control valve 22 equipped with a solenoid 24 which is electrically controlled depending on a car speed, on a hydraulic line from an oil pump to both a main valve 21 and a pressure chamber 31 so as to feed oil pressure proportional to a steering force while the car is running at a high speed, to the pressure chamber 31. The plural number of the reaction chambers 31 is formed to the radial direction around a pinion shaft 30 which is fitted onto the circumference of an input shaft 29, and a plunger 32 is slidably fitted onto the circumference of an input shaft 29, and a plunger 32 is slidably fitted in each of the pressure chamber 31. In this case, the pinion shaft 30 is provided with an orifice 33 made of synthetic resin having a large coefficient of linear thermal expansion to form a fixed restrictor of a small hole 33a in the orifice 33.

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